

Amendments to the Claims

1 (currently amended). A hydrogen storage material in the form of a film comprising a first region composed primarily of an amorphous carbon containing from 0.02 to 30 atomic % of at least one metal element selected from the group consisting of Ti, Zr, Hf and Y, and a second region that extends in a thickness direction of the film composed primarily of an amorphous carbon, the second region having a density from 10 to 40% ~~of from 1.4 to 2.2 g/cm³~~ and lower than that of the first region.

2 (previously presented). A hydrogen storage material in the form of a film containing voids, wherein the film is of an amorphous carbon containing at least one metal element selected from the group consisting of Ti, Zr, Hf and Y.

3-4 (canceled).

5 (previously presented). A process for the preparation of hydrogen storage materials which comprises providing a source of carbon containing pieces of at least one metal element selected from the group consisting of Ti, Zr, Hf and Y, and forming a film composed of an amorphous carbon containing said metal element on the surface of a base material at a temperature of 773 K or less according to a gas phase synthesis.

6 (previously presented). A process for the preparation of hydrogen storage materials which comprises providing a source of carbon containing pieces of at least one metal element selected from the group consisting of Ti, Zr, Hf and Y, and forming a film composed of an amorphous carbon containing said metal element on the surface of a base material under a process gas pressure of 1.33322 Pa or more according to a sputtering process.

7 (previously presented). The hydrogen storage material of claim 2 wherein the content of the metal element is from 0.02 to 30 atomic %.

8 (previously presented). The hydrogen storage material of claim 2 wherein the second region or the void extends to a thickness direction of the film.

9 (canceled).

10 (previously presented). The hydrogen storage material of claim 7 wherein the second region or the void extends to a thickness direction of the film.

11 (new). The hydrogen storage material of claim 1 wherein the average value of the densities of the first and the second region is from 1.4 to 2.2 g/cc³ in a metal element-free state.

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